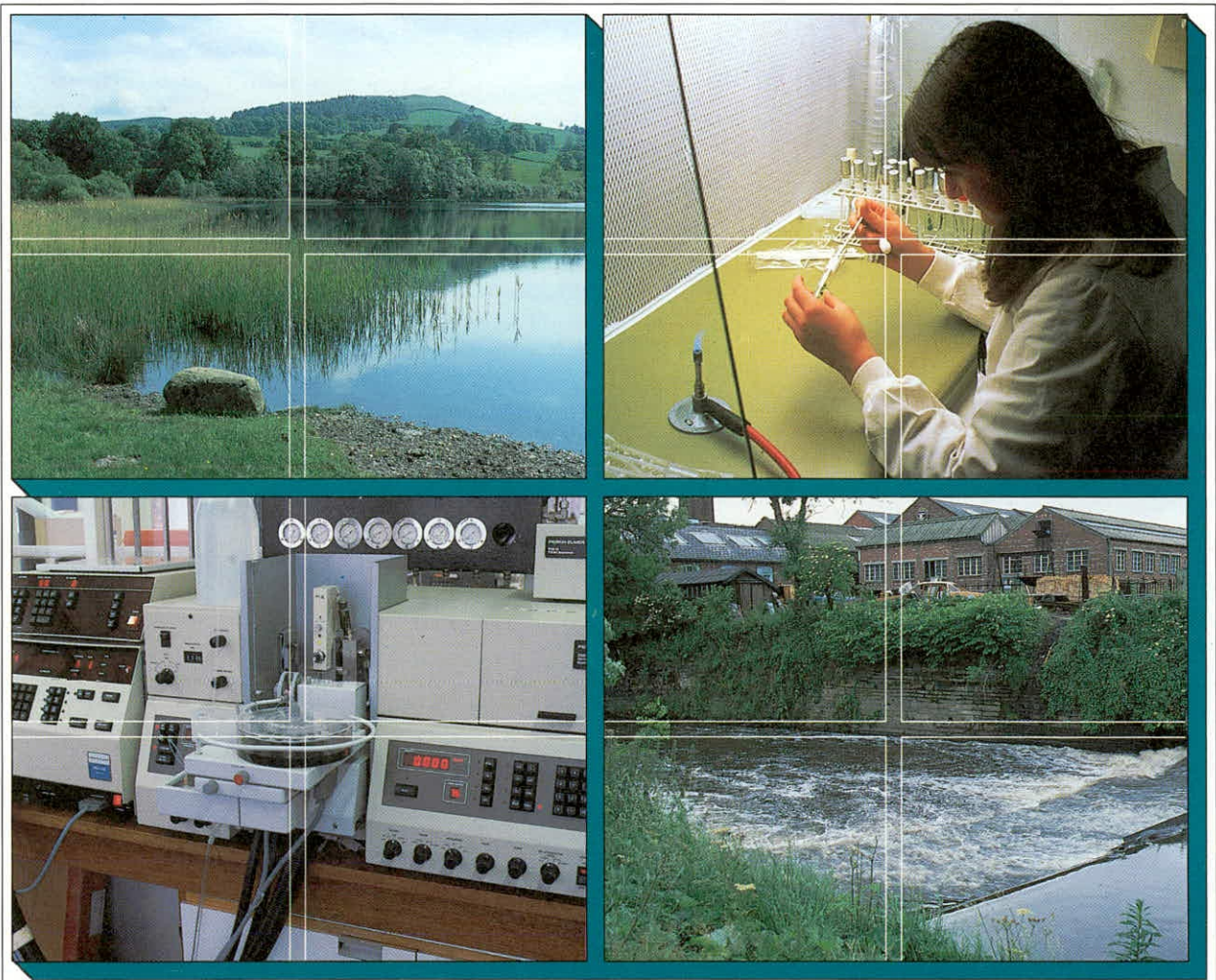




**Institute of
Freshwater
Ecology**

An audit of performance in the processing of macro-invertebrate samples in 1992. Northern Ireland

**R.J.M Gunn, BA
J.M. Winder, BSc
J.H. Blackburn, BSc
J.F. Wright, PhD**



INSTITUTE OF FRESHWATER ECOLOGY
River Laboratory, East Stoke, Wareham, Dorset BH20 6BB

Tel: 0929 462314

Fax: 0929 462180

**An audit of performance in the processing
of macro-invertebrate samples in 1992.
Northern Ireland**

R.J.M. Gunn, J.M. Winder, J.H. Blackburn & J.F. Wright

Project leader:	R.J.M. Gunn
Report date:	January 1993
Report to:	Industrial Research & Technology Unit Northern Ireland
IFE Report Ref:	RL/T04071a1/11
TFS Project No:	T04071a1

This is an unpublished report and should not be cited without permission, which should be sought through the Director of the Institute of Freshwater Ecology in the first instance.

The Institute of Freshwater Ecology is part of the Terrestrial and Freshwater Sciences Directorate of the Natural Environment Research Council.

1. INTRODUCTION

In 1992 the sampling of aquatic macro-invertebrates for the biological assessment of river quality continued throughout the United Kingdom. This task was undertaken by the National Rivers Authority (NRA) in England and Wales, the River Purification Boards (RPBs) in Scotland and the Industrial Research & Technology Unit (IRTU) in Northern Ireland.

In view of the number of staff involved and the variability of sample processing techniques, it was recognised that an independent quality control exercise was necessary to promote a consistently high level of reliability. The IFE was contracted to undertake an audit of the sample sorting and identification performance of each NRA region, several RPBs and the IRTU. This report presents the results of 60 samples audited for Northern Ireland. The IFE was not required to perform any statistical analyses nor interpretation of the results of the audit.

Each organisation employed standard collection procedures, as used in the 1990 River Quality Survey, and the sampling strategy was therefore compatible with RIVPACS (River InVertebrate Prediction And Classification System), which has been developed by the Institute of Freshwater Ecology (IFE).

Samples were sorted by NRA, RPB and IRTU personnel for the families of macro-invertebrates included in the Biological Monitoring Working Party (BMWP) system. Taxa present were recorded on site data sheets. Sample processing and recording techniques varied from region to region.

2. SAMPLE SELECTION

Samples for audit were selected internally by each of the agencies being monitored. The biologists processing these samples had no prior knowledge of the samples to be audited.

The manner of sample selection, which biologists would be monitored and the number of audit samples from each season, were left to the discretion of the agency, within the limits of the total number of samples that IFE was contracted to audit.

3. SAMPLE PROCESSING

The normal protocol for NRA, RPB and IRTU biologists was to sort their samples within the laboratory and to select examples of each scoring taxon within the BMWP system. In most cases, the invertebrates were placed in a vial of preservative (4% formaldehyde solution or 70% industrial alcohol) and the BMWP taxa were listed on a data sheet. The vial of animals and the sorted material were then returned to the sample container and preservative added. Thus, each sample available to IFE for audit should have included:

- i) a list of the BMWP families found in the sample
- ii) a vial containing representatives from each family
- iii) the preserved sample

When these three elements were present, the sequence of operations at IFE was as follows:

- a) The remainder of the sample was sorted and the BMWP families listed
- b) The families contained within the vial were identified and listed
- c) A comparison was made between the IRTU listing of families and those identified from the vial by IFE
- d) A comparison was made between the IRTU listing of families and those found in the sample by IFE
- e) "Losses" or "gains" from the IRTU listing of families were noted. In the case of "gains", each additional family was identified, where possible, to species level, in order to clarify any specific repetitive errors.

For a number of different reasons, some samples did not include a vial containing representative examples of the families listed on the data sheet. Others arrived with the vial damaged in transit such that the representative examples were no longer separated. For these samples, only operations a), d) and e) above were appropriate.

Several directives were issued to IFE relating to the treatment of BMWP taxa. Terrestrial representatives of BMWP scoring families, animals deemed to have been dead at the time of sampling, cast insect skins, pupal exuviae, empty mollusc shells and posterior ends of "living" specimens were to be excluded from the listing of families present. Chrysomelidae and Curculionidae, which appear in the BMWP list, were also to be excluded for the purposes of the audit. Trichopteran pupae, although not routinely identified by many biologists, were to be included in the listing of families.

4. REPORTING

The results of each sample audit were recorded on a standard report form (Table 1). For audit samples where a vial of animals was included, the comparison between the IRTU listing and the taxa found in the vial by IFE was shown in box A of the report form. Discrepancies could be due to carelessness, misidentifications or errors in completing the IRTU data sheet. Families not on the IRTU listing but found by IFE in the remainder of the sample were entered in box B of the report form under "additional families". When the families listed as "losses" in section A of the report form were compared with the full list of families recorded in the sample by IFE, some apparent losses from the vial were offset by the presence of those families in the remainder of the sample. These taxa were therefore listed in the "losses" box of section A and the "gains" box of section B and were neither a net loss nor a net gain. In these cases, the families were marked with an asterisk in both boxes. Such errors are noted as "omissions" in the tables which summarise the results for each season (Tables 2, 3 and 4).

Species identifications, state of development (eg adult or larval coleopterans) and the presence of a single representative of a family within the remainder of the sample were recorded in the notes section of the report form. Where the IRTU data sheet indicated that a family was noted and released at the site, this was recorded in the notes section but not included as a "loss", even though the family was not found in the vial.

For those samples in which the vial of animals was damaged or missing, box A of the report form was not applicable (N/a). Families not on the list but present in the sample were entered in box B under "additional families" as before. Families recorded on the list but not found by IFE were indicated on the left hand side of box B. Where the vial of animals was retained by the sorter, entries in this box could include the sole representative of a family which was removed, a family seen at the site which escaped or was released (without mention being made on the data sheet), inaccurate identification, the wrong family box being ticked on the data sheet or the family being present in the sample but missed by IFE.

Results of the audits of individual samples are presented in the Appendix.

ACKNOWLEDGEMENTS

Thanks to Kay Symes for help with production of results and to Valerie Palmer for typing the manuscript.

TABLE 1. The IFE Report form

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	<input type="text"/>	RIVER	<input type="text"/>
DATE	<input type="text"/>	SITE	<input type="text"/>
SORTER	<input type="text"/>	SAMPLE CODE	<input type="text"/>

AQC OF BMWP FAMILIES A. IN VIAL

☐

B. IN SAMPLE

☐

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE		

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	

NOTES:

NET LOSSES

☐

NET GAINS

☐

TABLE 2. The 20 spring samples audited for Northern Ireland

River	Site	Sorter	Losses	Gains	Omissions
Bush	Conagher Bridge	PRH	0	1	0
Moyola	New Bridge	IO'N	0	3	0
Bush	Ballyhoe Bridge	AHB	1	4	0
Braid	Harryville	AHB	2	2	1
Bush	Seneirl	IO'N	0	0	1
Grange Water	Curran	PRH	0	0	0
Cleen	Corralongford	CAK	0	3	1
Dervock	Dervock Bridge	IO'N	0	1	0
Agivey	Glasgort	PRH	1	0	0
Bush	Bushmills	CAK	0	3	0
Burn Gushet	Burn Gushet Bridge	CAK	0	1	0
Ballymoney	Ballymoney Road Bridge	AHB	0	3	0
Lissan Water	Lismoney	PRH	0	2	0
Crumlin	Nutts Conner	IO'N	2	2	0
Bush	Bellisle Bridge	IO'N	2	0	0
Main	Dunmore Bridge	AHB	1	2	0
Glenariff	Callisnagh Bridge	CAK	3	0	0
Ballymoney	Glenstall Bridge	CAK	1	0	0
Dervock	Iderown Bridge	AHB	1	1	1
Blackwater	Caledon Bridge	PRH	0	0	0

TABLE 3. The 20 summer samples audited for Northern Ireland

River	Site	Sorter	Losses	Gains	Omissions
Blackwater	Benburb	IO'N	0	1	0
Callan	Allistragh	CAK	1	4	0
Moyola	New Bridge	AHB	0	5	0
Magherafelt Burn	Grancias Bridge	AHB	0	3	0
Blackwater	The Moy	IO'N	1	2	0
Tall	Clonmain	IO'N	0	1	0
Oona Water	Oona Water Bridge	MJO	1	1	0
Ballymoney	Ballmoney Road Bridge	PRH	0	0	0
Cusher	Clare Bridge	PRH	0	0	0
Ballygawley Water	Lismore Bridge	IO'N	0	0	0
Crumlin	Nutts Corner	AHB	1	4	2
Grange Water	Curran	AHB	1	0	1
Tynan	A28 Bridge	CAK	1	1	2
Rhone	Clonteevy	CAK	1	0	0
Braid	Harryville Bridge	PRH	0	2	1
Bush	Conagher Bridge	PRH	0	0	0
Tall	Darby's Bridge	MJO	0	1	0
Lower Bann	Toomebridge	MJO	0	1	0
Tall	Redmonds Bridge	MJO	0	0	0
Blackwater	Burns Bridge	CAK	1	2	0

TABLE 4. The 20 autumn samples audited for Northern Ireland

River	Site	Sorter	Losses	Gains	Omissions
Agivey	Glasgort	AHB	0	0	0
Bush	Seneirl Bridge	AHB	3	0	0
Bush	Conagher Bridge	MJO	0	2	1
Carey	Carey Mill Bridge	MJO	0	0	1
Bush	Bushmills	PRH	0	2	0
Main	Dunmore Bridge	CAK	1	5	1
Annalong	Annalong Bridge	IO'N	0	0	0
Aughrim	Kilkeel	CAK	0	1	0
Glendun	Knocknacarry Bridge	AHB	2	2	0
Glenaan	Cushendall	IO'N	0	0	0
Kilbroney	Newtown Bridge	IO'N	2	0	0
Glenariff	Callisnagh Bridge	PRH	1	1	0
Bush	Ballyhoe Bridge	PRH	0	0	0
Glencoy	Carnlough	CAK	0	0	0
Annalong	Annalong Bridge (Resample)	AHB	0	1	0
Whitewater	Whitewater Bridge	CAK	1	2	0
Moygannon	Moygannon Bridge	IO'N	2	0	0
Kilkeel	Kilkeel A2 Bridge	MJO	2	2	0
Glenarm	Glenarm	PRH	0	0	0
Cassy Water	Cassy Water Bridge	MJO	1	3	0

APPENDIX

Results of individual sample audits

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Bush
DATE	29.4.91	SITE	Conagher Bridge
SORTER	PRH	SAMPLE CODE	NRA11 0091

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	1 Valvatidae

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NET LOSSES

0

NET GAINS

1

NOTES:

1 Valvata piscinalis 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION N.Ireland

RIVER Moyola

DATE 6.5.92

SITE New Bridge

SORTER IO'N

SAMPLE CODE NRA11 0078

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	1 Psychomyiidae

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	2 Heptageniidae 3 Calopterygidae

NET LOSSES

0

NET GAINS

3

NOTES:

1 Lype sp.
2 Heptagenia lateralis 1 only
3 Calopteryx splendens 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Bush
DATE	7.5.92	SITE	Ballyhoe Bridge
SORTER	AHB	SAMPLE CODE	NRA11 0264

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Polycentropodidae	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	2 Erpobdellidae 3 Taeniopterygidae 4 Tipulidae 5 Simuliidae

NET LOSSES

NET GAINS

NOTES:

2 Erpobdella octoculata 1 only
3 Brachyptera risi 1 only
4 Dicranota sp. 1 only
5 Simulium reptans 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Braid
DATE	7.5.92	SITE	Harryville
SORTER	AHB	SAMPLE CODE	NRA11 0037

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Lymnaeidae* 2 Rhyacophilidae 3 Sericostomatidae	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	4 Lymnaeidae* 5 Perlodidae 6 Hydrophilidae

NOTES: NET LOSSES NET GAINS

1,4 Empty shell in vial, Lymnaea peregra + L.palustris in sample
5 Isoperla grammatica 1 only
6 Hydraena gracilis, Ochthebius exsculptus (adults)

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Bush
DATE	7.5.92	SITE	Seneirl
SORTER	IO'N	SAMPLE CODE	NRA11 0087

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Hydrophilidae*	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	2 Hydrophilidae*

NET LOSSES

0

NET GAINS

0

NOTES:

2 Hydraena gracilis (adult) 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Grange Water
DATE	6.5.92	SITE	Curran
SORTER	PRH	SAMPLE CODE	NRA11 0270

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NET LOSSES

0

NET GAINS

0

NOTES:

--

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Cleen
DATE	7.5.92	SITE	Corralongford
SORTER	CAK	SAMPLE CODE	NRA11 0153

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Sphaeriidae*	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	2 Sphaeriidae* 3 Glossiphoniidae 4 Heptageniidae 5 Haliplidae

NET LOSSES

0

NET GAINS

3

NOTES:

1,2 Empty shells in vial, Pisidium sp., Sphaerium sp. in sample
 3 Helobdella stagnalis 1 only
 4 Rhithrogena germanica/semicolorata 1 only
 5 Brychius elevatus (adult) 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Dervock
DATE	7.5.92	SITE	Dervock Bridge
SORTER	IO'N	SAMPLE CODE	NRA11 0092

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	1 Polycentropodidae

NET LOSSES

0

NET GAINS

1

NOTES:

1 *Cyrrnus trimaculatus*

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Agivey
DATE	29.4.92	SITE	Glasgort
SORTER	PRH	SAMPLE CODE	NRA11 0083

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Planariidae	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NOTES: NET LOSSES NET GAINS

Note on data sheet that Gerridae seen at site. Not found by IFE in vial or sample

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Bush
DATE	7.5.92	SITE	Bushmills
SORTER	CAK	SAMPLE CODE	NRA11 0089

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	1 Hydroptilidae

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	2 Sphaeriidae 3 Rhyacophilidae

NET LOSSES

0

NET GAINS

3

NOTES:

1 Allotrichia pallicornis in vial, Hydroptila sp. in sample
 2 Pisidium sp. 1 only
 3 Rhyacophila sp. 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Burn Gushet
DATE	29.4.92	SITE	Burn Gushet Bridge
SORTER	CAK	SAMPLE CODE	NRA11 0090

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	1 Planorbidae

NET LOSSES

0

NET GAINS

1

NOTES:

1 Bathyomphalus contortus

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N. Ireland	RIVER	Ballymoney
DATE	29.4.92	SITE	Ballymoney Road Bridge
SORTER	AHB	SAMPLE CODE	NRA11 0086

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	1 Planariidae 2 Sphaeriidae 3 Ephemerellidae

NET LOSSES

0

NET GAINS

3

NOTES:

- 1 Polycelis felina 1 only
2 Pisidium sp.
3 Ephemerella ignita 1 only

Note on data sheet that Piscicolidae and Goeridae seen at site.
Goeridae found by IFE in sample, Piscicolidae not found in vial or sample

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Lissan Water
DATE	6.5.92	SITE	Lismoney
SORTER	PRH	SAMPLE CODE	NRA11 0077

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	1 Caenidae 2 Polycentropodidae

NET LOSSES

0

NET GAINS

2

NOTES:

1 Caenis rivulorum 1 only
2 Polycentropus flavomaculatus 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N. Ireland	RIVER	Crumlin
DATE	29.4.92	SITE	Nutts Corner
SORTER	IO'N	SAMPLE CODE	NRA11 0185

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Polycentropodidae 2 Tipulidae	3 Psychomyiidae

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	4 Simuliidae

NET LOSSES

2

NET GAINS

2

NOTES:

3 Tinodes waeneri
4 Simulium ornatum group 1 only

Note on data sheet that Perlodidae specimen misplaced. Not found by IFE in vial or sample

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Bush
DATE	29.4.92	SITE	Bellisle Bridge
SORTER	IO'N	SAMPLE CODE	NRA11 0088

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Leuctridae 2 Hydrophilidae	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NET LOSSES

2

NET GAINS

0

NOTES:

2 Cercyon sp. (terrestrial species) in vial

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Main
DATE	29.4.92	SITE	Dunmore Bridge
SORTER	AHB	SAMPLE CODE	NRA11 0030

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Hydrobiidae	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	2 Haliplidae 3 Limnephilidae

NET LOSSES

1

NET GAINS

2

NOTES:

- 1 Empty shell in vial
2 Halipus sp. (larva) 1 only
3 Anabolia nervosa 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Glenariff
DATE	14.5.92	SITE	Callisnagh Bridge
SORTER	CAK	SAMPLE CODE	NRA11 0189

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Perlodidae 2 Dytiscidae 3 Hydrophilidae	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NET LOSSES

3

NET GAINS

0

NOTES:

2 Terrestrial scarabiid (Aphodius sp.) in vial
3 Cercyon sp. (terrestrial species) in vial

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Ballymoney
DATE	29.4.92	SITE	Glenstall Bridge
SORTER	CAK	SAMPLE CODE	NRA11 0082

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Tipulidae	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NET LOSSES

1

NET GAINS

0

NOTES:

--

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Dervock (Doughery Water)
DATE	7.5.92	SITE	Iderown Bridge
SORTER	AHB	SAMPLE CODE	NRA11 0093

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Chloroperlidae 2 Rhyacophilidae*	3 Perlodidae

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	4 Rhyacophilidae*

NET LOSSES

1

NET GAINS

1

NOTES:

3 Isoperla grammatica
4 Rhyacophila dorsalis, Agapetus sp.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Blackwater
DATE	7.5.92	SITE	Caledon Bridge
SORTER	PRH	SAMPLE CODE	NRA11 0057

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NET LOSSES

0

NET GAINS

0

NOTES:

--

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Blackwater
DATE	29.7.92	SITE	Benburb
SORTER	IO'N	SAMPLE CODE	NRA11 0249

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	1 Heptageniidae

NET LOSSES

0

NET GAINS

1

NOTES:

1 Indet Heptageniid (1 head found)

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Callan
DATE	8.7.92	SITE	Allistragh
SORTER	CAK	SAMPLE CODE	NRA11 0072

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Limnephilidae	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	2 Valvatidae 3 Piscicolidae 4 Baetidae 5 Caenidae

NET LOSSES

1

NET GAINS

4

NOTES:

- 1 Empty Limnephilid case in vial
- 2 Valvata cristata, V.piscinalis
- 3 Piscicola geometra 1 only
- 4 Baetis rhodani, Cloeon dipterum
- 5 Caenis luctuosa/macrura 1 only

Gerridae absent from vial but entered on data sheet as "noted and returned". Gerris sp. (nymphs) found by IFE in sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Moyola
DATE	15.7.92	SITE	New Bridge
SORTER	AHB	SAMPLE CODE	NRA11 0078

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	1 Planariidae 2 Baetidae 3 Gerridae 4 Hydroptilidae 5 Limnephilidae

NET LOSSES

0

NET GAINS

5

NOTES:

- 1 Polycelis nigra/tenuis 1 only
- 2 Centropilum luteolum
- 3 Gerris sp. (nymph) 1 only
- 4 Hydroptila sp. 1 only
- 5 Halesus radiatus 1 only

Ancylidae, Heptageniidae & Polycentropodidae entered on data sheet as "noted at site, not in vial". Ancylidae & Polycentropodidae found by IFE in sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Magherafelt Burn
DATE	15.7.92	SITE	Granias Bridge
SORTER	AHB	SAMPLE CODE	NRA11 0251

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	1 Hydrobiidae 2 Physidae 3 Sphaeriidae

NET LOSSES

0

NET GAINS

3

NOTES:

1 Potamopyrgus jenkinsi
2 Physa fontinalis 1 only
3 Pisidium sp.

Dendrocoelidae entered on data sheet as "seen on site, not in tube".
Found by IFE in sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Blackwater
DATE	30.7.92	SITE	The Moy
SORTER	IO'N	SAMPLE CODE	NRA11 0056

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Valvatidae	2 Haliplidae

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	3 Dytiscidae

NET LOSSES

1

NET GAINS

2

NOTES:

2 Halipulus fluviatilis, H. lineatocollis, H. wehnckeii (adults)
3 Ilybius sp. (larva) 1 only

Gerridae entered on data sheet as "noted on site". Found by IFE in sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Tall
DATE	30.7.92	SITE	Clonmain
SORTER	IO'N	SAMPLE CODE	NRA11 0068

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	1 Gammaridae

NET LOSSES

0

NET GAINS

1

NOTES:

1 Gammarus pulex 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Oona Water
DATE	8.7.92	SITE	Oona Water Bridge
SORTER	MJO	SAMPLE CODE	NRA11 0060

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Ephemeridae	2 Ephemerellidae

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NET LOSSES

1

NET GAINS

1

NOTES:

2 Ephemerella ignita

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Ballymoney
DATE	6.8.92	SITE	Ballymoney Road Bridge
SORTER	PRH	SAMPLE CODE	NRA11 0086

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NET LOSSES

0

NET GAINS

0

NOTES:

--

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Cusher
DATE	12.7.92	SITE	Clare Bridge
SORTER	PRH	SAMPLE CODE	NRA11 0053

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NET LOSSES

0

NET GAINS

0

NOTES:

--

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Ballygawley Water
DATE	29.7.92	SITE	Lismore Bridge
SORTER	IO'N	SAMPLE CODE	NRA11 0230

AQC OF BMWP FAMILIES A. IN VIAL ☐+☐ B. IN SAMPLE ☐+☐

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NET LOSSES ☐0☐

NET GAINS ☐0☐

NOTES:

Gyrinidae entered on data sheet as "spotted on site (not captured)".
Not found by IFE in vial or sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Crumlin
DATE	15.7.92	SITE	Nutts Corner
SORTER	AHB	SAMPLE CODE	NRA11 0185

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Asellidae* 2 Gammaridae* 3 Notonectidae	4 Corixidae

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	5 Hydrobiidae 6 Asellidae* 7 Gammaridae* 8 Elmidae 9 Simuliidae

NET LOSSES

1

NET GAINS

4

NOTES:

4 Indet Corixid nymph
5 Potamopyrgus jenkinsi
6 Asellus aquaticus
7 Gammarus duebeni
8 Elmis aenea (adult), Limnius volckmari (larva)
9 Simulium ornatum group

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Grange Water
DATE	15.7.92	SITE	Curran
SORTER	AHB	SAMPLE CODE	NRA11 0270

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Oligochaeta 2 Dytiscidae*	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	3 Dytiscidae*

NET LOSSES

1

NET GAINS

0

NOTES:

3 Potamonectes depressus (adult)

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Tynan
DATE	29.7.92	SITE	A28 Bridge
SORTER	CAK	SAMPLE CODE	NRA11 0231

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Baetidae* 2 Ephemeridae 3 Haliplidae*	4 Ephemerellidae

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	5 Baetidae* 6 Haliplidae*

NET LOSSES

1

NET GAINS

1

NOTES:

4 Ephemerella ignita
5 Baetis rhodani
6 Brychius elevatus (larva), Halipus wehncke (adult)

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION N.Ireland

RIVER Rhone

DATE 8.7.92

SITE Clonteevy

SORTER CAK

SAMPLE CODE NRa11 0061

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Sphaeriidae	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NET LOSSES

1

NET GAINS

0

NOTES:

1 Empty shell in vial

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Braid
DATE	6.8.92	SITE	Harryville Bridge
SORTER	PRH	SAMPLE CODE	NRA11 0037

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Valvatidae*	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	2 Valvatidae* 3 Piscicolidae 4 Glossiphoniidae

NET LOSSES

0

NET GAINS

2

NOTES:

2 Valvata piscinalis
3 Piscicola geometra 1 only
4 Helobdella stagnalis 1 only

Rhyacophilidae entered on data sheet as "noted on site not included"
Rhyacophila sp. (pupa) found by IFE in sample

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Bush
DATE	12.8.92	SITE	Conagher Bridge
SORTER	PRH	SAMPLE CODE	NRA11 0091

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NET LOSSES NET GAINS

NOTES:

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Tall
DATE	8.7.92	SITE	Darby's Bridge
SORTER	MJO	SAMPLE CODE	NRA11 0071

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	1 Rhyacophilidae

NET LOSSES

0

NET GAINS

1

NOTES:

1 Agapetus sp. 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Lower Bann
DATE	15.7.92	SITE	Toomebridge
SORTER	MJO	SAMPLE CODE	NRA11 0081

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	1 Oligochaeta

NET LOSSES

0

NET GAINS

1

NOTES:

1 Indet Naididae 1 only

Ancylidae entered on data sheet as "recorded at site". Found by IFE in sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Tall
DATE	8.7.92	SITE	Redmonds Bridge
SORTER	MJO	SAMPLE CODE	NRA11 0069

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NET LOSSES

0

NET GAINS

0

NOTES:

--

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Blackwater
DATE	29.7.92	SITE	Burns Bridge
SORTER	CAK	SAMPLE CODE	NRA11 0229

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Ephemeridae	2 Ephemerellidae

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	3 Hydroptilidae

NET LOSSES

1

NET GAINS

2

NOTES:

2 Ephemerella ignita
3 Hydroptila sp. (pupa) 1 only

Hydrometridae & Gerridae entered on data sheet as "spotted on site".
Gerridae found by IFE in sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION N.Ireland

RIVER Agivey

DATE 12.11.92

SITE Glasgort

SORTER AHB

SAMPLE CODE NRA11 0083

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NET LOSSES

0

NET GAINS

0

NOTES:

Note on data sheet that Agriidae (= Calopterygidae) "Noted on site - not in tube". Not found by IFE in vial or sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Bush
DATE	4.11.92	SITE	Seneirl Bridge
SORTER	AHB	SAMPLE CODE	NRA11 0087

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Notonectidae 2 Gyrinidae 3 Lepidostomatidae	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NET LOSSES

3

NET GAINS

0

NOTES:

--

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Bush
DATE	4.11.92	SITE	Conagher Bridge
SORTER	MJO	SAMPLE CODE	NRA11 0091

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Oligochaeta*	2 Tipulidae

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	3 Lymnaeidae 4 Oligochaeta*

NET LOSSES

0

NET GAINS

2

NOTES:

2 Tipula montium group, Dicranota sp.
3 Lymnaea peregra 1 only
4 Indet Lumbricid

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Carey
DATE	28.10.92	SITE	Carey Mill Bridge
SORTER	MJO	SAMPLE CODE	NRA11 0192

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Rhyacophilidae*	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	2 Rhyacophilidae*

NET LOSSES

0

NET GAINS

0

NOTES:

1,2 Empty pupal case of Rhyacophila sp. in vial, Glossosoma sp. in sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Bush
DATE	4.11.92	SITE	Bushmills
SORTER	PRH	SAMPLE CODE	NRA11 0089

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	1 Glossiphoniidae 2 Rhyacophilidae

NET LOSSES

0

NET GAINS

2

NOTES:

1 Helobdella stagnalis 1 only
2 Glossosoma sp. 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Main
DATE	8.10.92	SITE	Dunmore Bridge
SORTER	CAK	SAMPLE CODE	NRA11 0030

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Hydrophilidae* 2 Rhyacophilidae	3 Psychomyiidae 4 Limnephilidae

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	5 Lymnaeidae 6 Haliplidae 7 Hydrophilidae* 8 Lepidostomatidae

NET LOSSES

1

NET GAINS

5

NOTES:

3 Tinodes waeneri
4 Indet Limnephilid (juvenile)
5 Lymnaea peregra 1 only
6 Halipus sp. (larva) 1 only
7 Hydraena sp. (adult) 1 only
8 Lepidostoma hirtum

Note on data sheet that Dendrocoelidae "noted on site". Not found by IFE in vial or sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Annalong
DATE	26.10.92	SITE	Annalong Bridge
SORTER	IO'N	SAMPLE CODE	NRA11 0234

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NET LOSSES

0

NET GAINS

0

NOTES:

--

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION N.Ireland

RIVER Aughrim

DATE 26.10.92

SITE Kilkeel

SORTER CAK

SAMPLE CODE NRA11 0232

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	1 Sphaeriidae

NET LOSSES

0

NET GAINS

1

NOTES:

1 Pisidium sp.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Glendun
DATE	28.10.92	SITE	Knocknacarry Bridge
SORTER	AHB	SAMPLE CODE	NRA11 0191

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Oligochaeta 2 Leptoceridae	3 Valvatidae 4 Lepidostomatidae

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NET LOSSES

2

NET GAINS

2

NOTES:

3 Valvata piscinalis
4 Lepidostoma hirtum 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION N.Ireland

RIVER Glenaar

DATE 28.10.92

SITE Cushendall

SORTER IO'N

SAMPLE CODE NRA11 0190

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NET LOSSES

0

NET GAINS

0

NOTES:

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Kilbroney
DATE	26.10.92	SITE	Newtown Bridge
SORTER	IO'N	SAMPLE CODE	NRA11 0121

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Hydroptilidae 2 Leptoceridae	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NET LOSSES

2

NET GAINS

0

NOTES:

Note on data sheet that Goeridae "not in specimen tube". Not found by IFE in vial or sample.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION N.Ireland

RIVER Glenariff

DATE 28.10.92

SITE Callisnagh Bridge

SORTER PRH

SAMPLE CODE NRA11 0189

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Ancyliidae	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	2 Sphaeriidae

NET LOSSES

1

NET GAINS

1

NOTES:

2 Pisidium sp. 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION

N.Ireland

RIVER

Bush

DATE

4.11.92

SITE

Ballyhoe Bridge

SORTER

PRH

SAMPLE CODE

NRA11 0264

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NET LOSSES

0

NET GAINS

0

NOTES:

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Glencoy
DATE	28.10.92	SITE	Carnlough
SORTER	CAK	SAMPLE CODE	NRA11 0196

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NOTES: NET LOSSES NET GAINS

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Annalong
DATE	12.11.92	SITE	Annalong Bridge (Resample)
SORTER	AHB	SAMPLE CODE	NRA11 0234

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	1 Lymnaeidae

NOTES:

NET LOSSES

NET GAINS

1 Lymnaea peregra 1 only

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION N.Ireland

RIVER Whitewater

DATE 26.10.92

SITE Whitewater Bridge

SORTER CAK

SAMPLE CODE NRA11 0222

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Oligochaeta	2 Psychomyiidae

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	3 Sphaeriidae

NET LOSSES

1

NET GAINS

2

NOTES:

2 Tinodes sp. (juvenile)
3 Pisidium sp.

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Moygannon
DATE	26.10.92	SITE	Moygannon Bridge
SORTER	IO'N	SAMPLE CODE	NRA11 0219

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Oligochaeta 2 Leptoceridae	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NET LOSSES

2

NET GAINS

0

NOTES:

--

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION N.Ireland

RIVER Kilkeel

DATE 26.10.92

SITE Kilkeel A2 Bridge

SORTER MJO

SAMPLE CODE NRA11 0233

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Erpobdellidae 2 Calopterygidae	3 Coenagriidae 4 Valvatidae

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NET LOSSES 2

NET GAINS 2

NOTES:

1 Fully extended Helobdella stagnalis in vial
 3 Pyrrhosoma nymphula
 4 Valvata piscinalis

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION	N.Ireland	RIVER	Glenarm
DATE	28.10.92	SITE	Glenarm
SORTER	PRH	SAMPLE CODE	NRA11 0195

AQC OF BMWP FAMILIES A. IN VIAL

+

B. IN SAMPLE

+

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	None	None

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	None

NET LOSSES

0

NET GAINS

0

NOTES:

--

1992 RIVER QUALITY SURVEY AQC - BIOLOGICAL SAMPLES

REGION N.Ireland

RIVER Cassy Water

DATE 26.10.92

SITE Cassy Water Bridge

SORTER MJO

SAMPLE CODE NRA11 0221

AQC OF BMWP FAMILIES A. IN VIAL B. IN SAMPLE

A	VIAL	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES FOUND BY IFE
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in VIAL by IFE	1 Dendrocoelidae	2 Planariidae

B	SAMPLE	BMWP FAMILIES NOT FOUND BY IFE	ADDITIONAL FAMILIES
	Differences between: i) BMWP families listed on sample data sheet and ii) BMWP families found in SAMPLE by IFE	(This box only completed when no vial is supplied with sample)	3 Hydrobiidae 4 Coenagriidae

NET LOSSES NET GAINS

NOTES:

2 Phagocata vitta
3 Potamopyrgus jenkinsi 1 only
4 Pyrrhosoma nymphula 1 only

